

THE FOLLOWING IS CLAIMED:

1. A method for processing a metal containing surface comprising:
cleaning at least a portion of the metal containing surface,
5 contacting at least a portion of the metal containing surface with at least one silica containing composition having a basic pH, and;
contacting with a molten metal.
2. A method for treating a metal containing surface comprising at least one shaped electronic component defining at least one opening therein comprising:
10 cleaning the component,
rinsing the component,
exposing the component to at least one acid containing solution,
contacting at least a portion of the component with a coating composition having
15 a basic pH and comprising at least one silica containing composition,
contacting with a molten metal, and;
recovering at least one treated electronic component.
3. The method of 2 wherein the metal surface comprises at least one member
20 selected from the group of an electric motor, a transformer and components thereof.
4. A method for processing a metal containing surface comprising:
cleaning at least a portion of the metal containing surface,
25 rinsing the metal containing surface,
functionalizing at least a portion of the metal containing surface by exposure to at least one acidic solution,
contacting at least a portion of the metal containing surface with at least one silica containing composition having a basic pH,
30 exposing the metal containing surface to a basic solution, and;

contacting with a molten metal.

5. The method of Claim 4 wherein the composition of the metal surface is different from the molten metal.

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6. The method of Claim 5 wherein the metal surface comprises zinc and the molten metal comprises aluminum.

10 7. The method of Claim 4 further comprising solidifying the molten metal and heating the metal containing surface to a temperature greater than its melting point and removing the metal from the solidified metal.

8. The method of Claim 2 wherein the metal containing surface comprises steel and the molten metal comprises aluminum.

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9. The method of Claim 4 wherein the method reduces adhesion between the metal containing surface and the molten metal.

20 10. The method of Claim 4 wherein the acidic solution comprises hydrochloric acid and the basic solution comprises sodium hydroxide.

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